amd2

11. (Amended) A method for screening a collection of compounds to determine those compounds which bind to receptors of the activin/TGF-β superfamily, said method comprising employing a receptor in a competitive binding assay,

wherein said receptor is a novel receptor protein characterized by having the following domains, reading from the N-terminal end of said protein:

an extracellular, ligand-binding domain,

a hydrophobic, trans-membrane domain, and

an intracellular, receptor domain having serine kinase-like activity.

12. (Amended) A bioassay for evaluating whether compounds are agonists for a receptor protein(s), or functional modified forms of said receptor protein(s), said bioassay comprising:

B1

(a) culturing cells containing:

DNA which expresses said receptor protein(s) or functional modified forms of said receptor protein(s), and

DNA encoding a hormone response element operatively linked to a reporter gene,

wherein said culturing is carried out in the presence of at least one compound whose ability to induce transcription activation activity of said receptor protein is sought to be determined; and thereafter

(b) monitoring said cells for expression of said reporter gene,

wherein said receptor protein(s) is a novel receptor protein characterized by having the following domains, reading from the N-terminal end of said protein(s):

an extracellular, ligand-binding domain,

a hydrophobic, trans-membrane domain, and

an intracellular, receptor domain having serine kinase-like activity.

13. (Amended) A bioassay for evaluating whether compounds are antagonists for a receptor protein(s), or functional modified forms of said receptor protein(s), said bioassay comprising:

(a) culturing cells containing:

DNA which expresses said receptor protein(s) or functional modified forms of said receptor protein(s), and

DNA encoding a hormone response element operatively linked to a reporter gene,

wherein said culturing is carried out in the presence of:

increasing concentrations of at least one compound whose ability to inhibit transcription activation of said receptor protein(s) is sought to be determined, and

a fixed concentration of at least one agonist for said receptor protein(s), or functional modified forms of said receptor protein(s); and thereafter

(b) monitoring in said cells the level of expression of the product of said reporter gene as a function of the concentration of said compound, thereby indicating the ability of said compound to inhibit activation of transcription,

wherein said receptor protein(s) is a novel receptor protein characterized by having the following domains, reading from the N-terminal end of said protein(s):

an extracellular, ligand-binding domain,

a hydrophobic, trans-membrane domain, and

an intracellular, receptor domain having serine kinase-like activity.

Please cancel claims 1-10 and 14-17 without prejudice.